

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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SECURITY INFORMATION

COUNTRY	USSR (Kalinin Oblast)	REPORT	<input type="text"/>	25X1
SUBJECT	Guided Missiles Designed at Ostashkov	DATE DISTR.	21 May 1953	
		NO. OF PAGES	3	25X1
DATE OF INFO.	<input type="text"/>	REQUIREMENT NO.	<input type="text"/>	
PLACE ACQUIRED	<input type="text"/>	REFERENCES	<input type="text"/>	

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(FOR KEY SEE REVERSE)

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1. at Ostashkov, projects were developed for the improvement of three separate missiles. The three missiles were: (a) the A-4, (b) the flak rocket (this was similar to the German Wasserfall or perhaps the Schmetterling), and (c) the ground-to-ground

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25 YEAR
RE-REVIEW

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rocket called "Flugzug" by the Germans as it was similar to an aircraft in design.

The V-2 improvement project was the main project of the entire Ostashkov organization during 1948 and 1949. It was proposed to increase the range to something on the order of 1000 to 2000 km.

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Various experimentations, however, included:

- a. The increase in the length of the rocket to provide more fuel space.
- b. The development of a better fuel.
- c. The improvement of the fuel injection system.
- d. The use of exhaust gases to run a turbine for fuel injection.
- e. The addition of wings to the missile and the use of a jet motor.

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the first [a] was considered the most important by the Germans. No new fuel was proposed [b]. However, considerable work on fuel injection [c] was done by the Propulsion Department. The last two [d] and [e] were considered uneconomical solutions and the Soviets also viewed the suggestion of using wings [a] with considerable doubt. The Aerodynamics, the Propulsion, and the Chemical Departments, and perhaps others, made reports to the Construction Department which was to have designed an improved missile based on the findings.

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The men that would probably be best able to give details and final results of this work are Dr. Blass, Dr. Wolff, Dr. Umpfenbach, and Dr. Albring.

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A missile of normal aircraft design [] called Flugzug) was requested by the Soviets in 1949. This was to have been about 30 feet long and to have wings and conventional aircraft steering surfaces. [] the missile was to have a speed of Mach 2 or 3. [] its Mach number was well over 1.

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The missile was to be propelled by a continuously burning jet motor. [] the goal was a 1000 to 2000 km range, since range was the point of emphasis.

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No model was ever tested in the wind tunnel. The Soviet comment on the report from the Aerodynamics Department was that it was of no practical value. Dr. Albring and Dipl Ing Konrad would have the best knowledge of this project.

A flak rocket was designed during 1950-1951. This rocket was of an entirely new design based on knowledge the Germans had gained from an earlier rocket design ([] the Wasserfall).

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A sketch of a model of this rocket, full size [redacted] the dimensions, is shown below. This model was used for wind tunnel experiments. The rocket was about 2-3 meters long when built.

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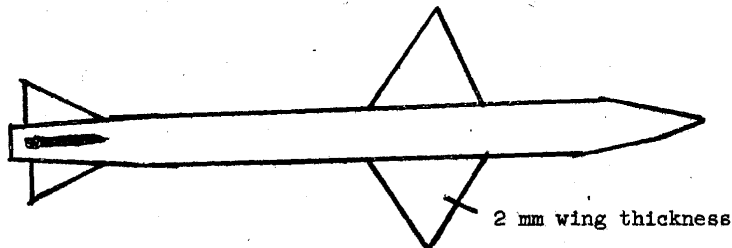
The Soviets proposed this project, sending a special commission of some 3 to 5 men to lay out the work. The Aerodynamics Department had not turned over their plans to the Construction Department when the Soviets took the project over in 1951.

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[redacted] the Aerodynamics Department had confidence that its plans were satisfactory except for some concern over the thinness of the wings. Considerable discussion had also been carried on as to the relative merits of 2 or 4 wings, but it was believed that the 2-wing design would be satisfactory. The Steering Department had great difficulty with the stabilization of the rocket, as Dr. Hoch had returned to Moscow before it was well established. It seems that no competent people existed to work out the stability problem.

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[redacted]
Dr. Albring and Dr. Wolff would have better knowledge of this project.



Sketch of MODEL of FLAK ROCKET MISSILE
(Scale=Full Size)

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